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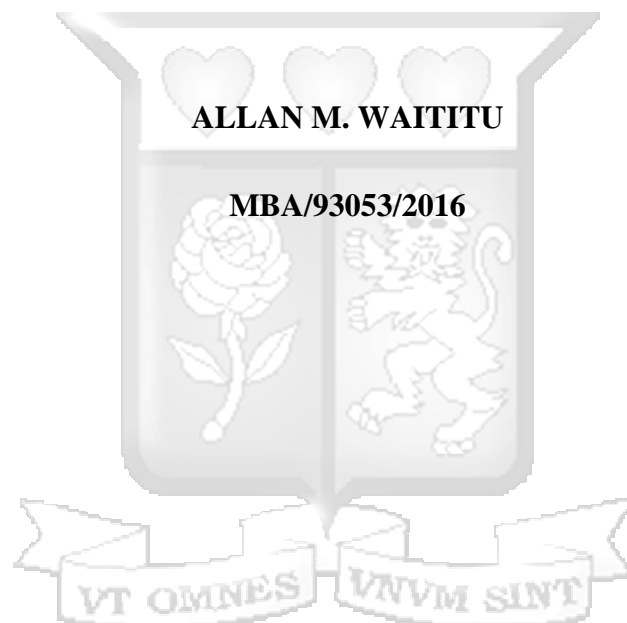
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CUSTOMER PERCEPTIONS ON THE ADOPTION OF ELECTRONIC BANKING IN KENYA



**DISSERTATION SUBMITTED TO STRATHMORE BUSINESS SCHOOL IN
PARTIAL FULFILLMENT FOR THE DEGREE OF MASTERS IN BUSINESS
ADMINISTRATION OF STRATHMORE UNIVERSITY**

June, 2019

DECLARATION

This Research is my original work and has not been presented for a degree in any other University

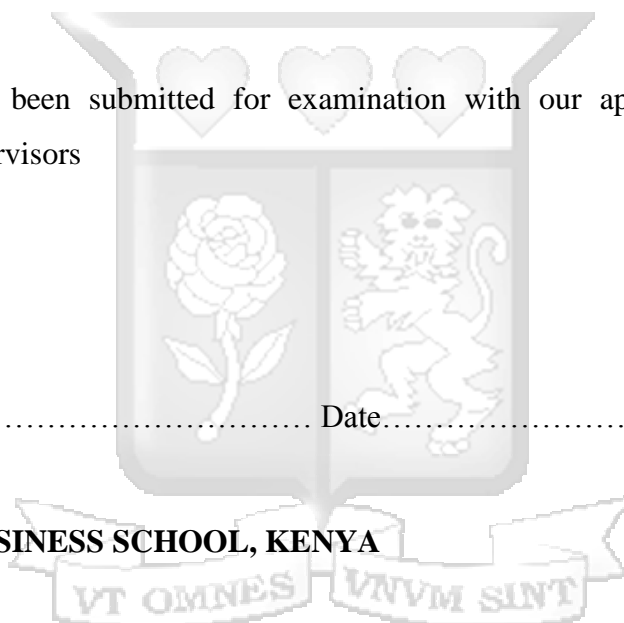
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This dissertation has been submitted for examination with our approval as Strathmore Business School Supervisors

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Signature..... Date.....

STRATHMORE BUSINESS SCHOOL, KENYA

DEDICATION

I dedicate this thesis to those who inspired, enabled and fired my journey of learning.

Specific of mention are the late Mr. Geoffrey Wambugu Mwathi, the late Patrick D. Shaw and the late Dr. Geoffrey W. Griffin. To the leadership and encouragement of Dr. James N. Mwangi and to my departed and loving grandparents.



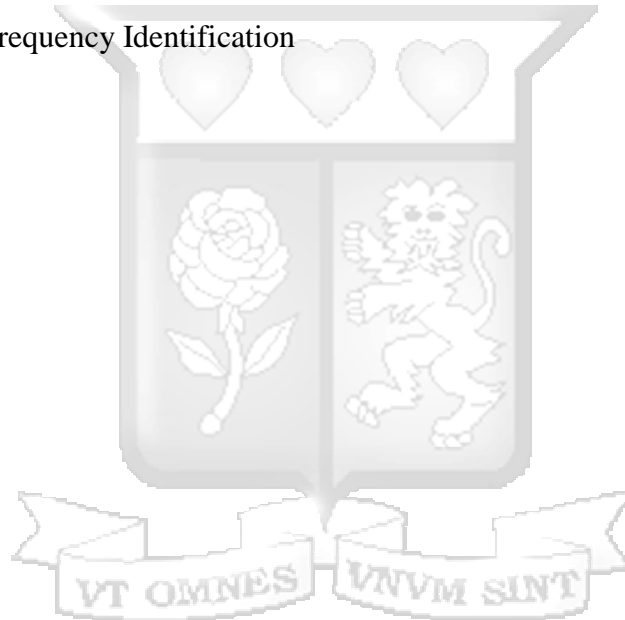
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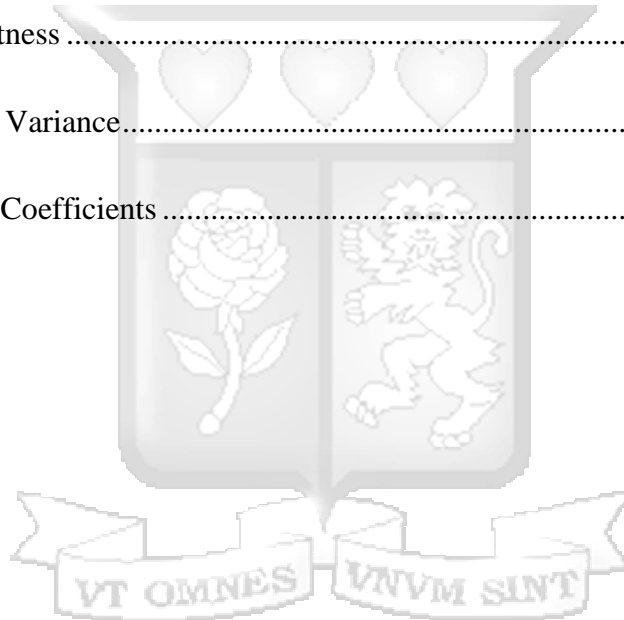
ABBREVIATIONS AND ACRONYMS

IMOT	Integrative Model of Organizational Trust
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
RFID	Radio Frequency Identification



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ABSTRACT

Approximately half of the customers that have tried electronic banking services in Kenya will not become active users. Given the almost comprehensive adoption of electronic banking in the developed economies, the reasons behind the slow adoption of e-banking channels in Kenya are important research questions. In the banking world, the growth of information technology has a massive effect on the development of more flexible payment methods and more-user friendly banking services. The purpose of this study was to investigate the factors influencing the adoption of electronic banking among users in Kenya. The study was guided by the following research questions: How do privacy perceptions affect the adoption of e-banking in Kenya? How do convenience perceptions affect the adoption of e-banking in Kenya? How do security perceptions affect the adoption of e-banking in Kenya? This research adopted a descriptive research design. A random sample of 120 banking customers from a stratified sample covering all genders and ages from 19 years and above was considered. The researcher administered a questionnaire as the primary data collection instrument using Survey Monkey, email, and pick and drop approaches. The researcher coded and organized the data into different categories. The administered questionnaire had a response rate of 81% which was considered representative. Data was analyzed using the Statistical Package for Social Sciences (SPSS). The findings relating to the security of electronic banking show that customers are uncertain whether to embrace the good qualities of internet banking or resist the dangers presented by security loopholes. The findings on convenience show that users perceive electronic banking as a cheaper and more efficient banking channel, as opposed to the traditional brick and mortar setting. Finally, the findings on privacy show that a majority of electronic banking users believe that banks ensure confidentiality. In the same measure, a majority of the respondents did not believe that electronic banking contributes to privacy violations.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

A strong banking industry is fundamentally important in the economy of any country. The banking sector plays a critical role in supporting economic development through the provision of financial services that facilitate activities such as trade (Oluoch, 2012). Consequently, Kenya's banking industry needs to embrace changes that reflect the global trajectory at both informational and procedural levels. One of these changes is the shift from traditional distributional channels to electronic distribution channel banking (Oladejo & Akanbim, 2012). Electronic banking utilizes computer as well as electronic technology in place of checks and other paper transactions.

Electronic banking can be initiated through devices, cards or codes that let a customer or those he/she authorizes, to access an account and perform transactions such as money transfers (Oladejo, M., & Akanbi, 2012). Other electronic banking platforms include radio frequency identification (RFID) and types of contactless technologies that enable banks to scan customer information without contact (Munyoki & Ngigik, 2012). In Kenya, the most common e-banking platforms include pay-by-phone systems, personal computer banking, and debit card purchases. While e-banking has grown rapidly, there is no tangible evidence of its acceptance among Kenyan customers. Oluoch (2012) reported that half of the customers that have tried electronic banking services in Kenya will not become active users. Given the almost comprehensive adoption of electronic banking in the developed economies, the reasons behind the slow adoption of e-banking channels in Kenya are important research questions.

Kenyan retail banks, like other banks elsewhere in the world, have invested and continue to invest significantly in the provision of electronic banking (e-banking) services. A majority of these banks hope that such investments can translate into faster market penetration and higher returns (Okibo & Wario, 2014). However, the adoption of e-banking services has not been as fast as previously thought despite the convenience offered to customers. Strategies aimed at achieving a faster adoption as well as the use of e-banking services depends solidly on whether stakeholders, i.e. banks and regulators understand the factors that influence the adoption of e-

banking services (Odumeru, 2012). Okibo, B & Wario (2014) emphasize that retail banks continue to experience significant challenges in influencing customers to migrate from over-the-counter services to e-banking services.

In the banking world, the growth of information technology has a massive effect on the development of more flexible payment methods and more-user friendly banking services. At the basic level, electronic banking can mean the setting up of a web page by a bank to give information about its products and services (Maiyo, 2013). At an advanced level, however, it involves the provision of facilities such as accessing accounts, transferring funds, and buying financial products or services on electronic devices (Maiyo, 2013). Despite the benefits of e-banking, customers find it extremely essential to consider the risks involved with electronic banking. Incidentally, a number of bank customers still refuse to use e-banking services such as the installation of mobile banking applications (Kanyaru & Kyalo, 2015). Some of the concerns expressed by individuals include the security of personal information and fraud concerns (Khare et al., 2012).

Several researchers have examined the factors that deter customers from utilizing e-banking as a conventional financial delivery channel in the developed as well as developing countries. For example, Pourkiaei and Ardestani (2014) conducted a study on electronic banking with an intention to investigate the level of satisfaction among customers utilizing the service. The study found out that customers did not embrace electronic banking because of different reasons such as lack of knowledge regarding how to use services, safety and security doubts and fears over the transmission of personal information. According to Njuguna et al., (2012), little research has been conducted in Kenya on the adoption and usage of electronic banking and thus adoption and usage trends are unclear.

Approximately 85% of Kenyan adults in urban areas have adopted electronic means of payment, including mobile phone payments, bank accounts, payment products as well as prepaid cards (McKensey 2017). A study by MasterCard in 2017 highlighted that some of the factors affecting online purchasing and electronic payment are broadband costs, illiteracy rates, poor logistics, fragmented and open markets, and distrust due to Internet fraud and cybersecurity concerns. Most studies on the subject of electronic banking have failed to address the challenges that banks

face in implementing electronic banking. This study aimed at filling this gap by highlighting this challenge and proposing appropriate strategies to implement that will address the concerns of consumers regarding the applicability of electronic banking.

1.2 Statement of the Problem

Banks face significant challenges in implementing electronic banking channels. Munyoki and Ndung'u (2012) demonstrated that there is slow uptake of e-banking in Kenya. This is the case in many developing countries, especially in Sub-Saharan Africa. For example, Nasri & Charfeddine (2012) showed that millions of bank customers across Tunisia are either unsatisfied with e-banking services or are skeptical about certain aspects of their utilization. In this regard, banks need to improve the development of their e-banking platforms such as mobile apps to incorporate the concerns raised by customers.

Various studies have highlighted different observations by researchers on the reasons behind the low uptake or otherwise of electronic banking services. It is imperative to understand the reasons behind rejecting e-banking. This is especially important, considering that banks recognize internet-based e-banking systems as important channels of cost reduction (Kesharwani & Singh., 2012). While Ogare (2013) thought that the presence of alternative channels such as agency banking is the reason for the low uptake, Mchemi (2013) observed that customers have perceptions and attitudes that dissuade them from embracing electronic banking.

The main focus of this research was to investigate the effect of customer perceptions regarding ease of use, user privacy and security on the adoption of e-banking in Kenya. Consequently, the research will aid in depicting the qualification of these three factors as acceptance and rejection factors in e-banking adoption and guide commercial banks on ways of increasing customers' willingness to use e-banking. A stable banking environment is critical towards the thriving economy of any country. The development of alternative banking channels such as electronic banking is important in ensuring efficiency in the banking sector. This study will contribute immensely towards informing policymakers of the enabling factors that will help realize the growth of the sector.

1.3 Research Objectives

1.3.1 General Objective

To determine the effect of customer perceptions on the adoption of e-banking in Kenya

1.3.2 Specific Objectives

- i To determine the effect of privacy perceptions on the adoption of e-banking in Kenya
- ii To establish the effect of convenience perceptions on the adoption of e-banking in Kenya
- iii To examine the effect of security perceptions on the adoption of e-banking in Kenya

1.4 Research Questions

- i How do privacy perceptions affect the adoption of e-banking in Kenya?
- ii How do convenience perceptions affect the adoption of e-banking in Kenya?
- iii How do security perceptions affect the adoption of e-banking in Kenya?

1.5 Significance of the Study

This study can provide banking institutions with a practical understanding of electronic banking by delving into the behavioral, social and attitudinal factors that are primary towards explaining the customers' intentions to adopt or not to adopt e-banking in Kenya. The findings of this research will provide banks with multidimensional approaches to fully understand these intentions. Moreover, the study will contribute significantly to theory and practice, in an area that is yet to be studied extensively. Given the increasingly important role of e-banking in the Kenyan as well as global market, this study will help in the strategy and policy formulation by designing interventions based on the concerns raised by the end users (customers) of various e-banking platforms.

From an academic standpoint, this study will contribute towards the development of more comprehensive models that can be utilized in understanding the adoption of electronic banking.

Finally, the study will help inform government regulations and policies with regard to electronic banking with the aim of providing a workable, safe and productive business environment.

1.6 Scope of the Study

This study targeted banking customers in Nairobi who hold accounts with any of the commercial banks that offer electronic banking services. The study was conducted between 1st February 2019 and 30th April 2019. The respondents sampled who are above 18 years old and hold accounts for personal use.



CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides a detailed investigation of empirical studies that relate to the factors that affect the adoption of electronic banking among banking customers in Kenya. This chapter will analyze literature with respect to the research questions highlighted in the first chapter. The first section of this literature review looks at how security concerns among customers determine the willingness to use electronic banking. The second section will look at how the ease of use (accessibility) perceptions influences the choice of e-banking. The last section will investigate the role of privacy perceptions in determining the choice of e-banking services.

2.2. Theoretical Review

The acceptance of e-banking innovations is affected by how people feel (affective), believe (cognitive) and are influenced by the surroundings (social norm). There are other theoretical models that explain the adoption of technology among different users. These models range from the Innovation Diffusion Theory (1995), the Social Psychology Theory (1982), the Theory of Reasoned Action (1975), the Theory of Planned Behavior (1991), the Technology Acceptance Model (1989) and the Decomposed Theory of Planned Behavior (1995).

2.2.1 The Theory of Reasoned Action

The theory of reasoned action provides a foundational model that can help in predicting a person's intention to perform a particular behavior based on a person's attitude and normative beliefs. This theory was developed by Ajzen and Martin Fishbein as an improvement to the Information Integration theory. Rather than attempting to predict individual attitudes like other theories, this theory is concerned explicitly with behavior. Nonetheless, this theory recognizes that certain situations can limit the influence of attitude on behavior.

Specifically, this theory predicts that behavioral intent is caused majorly by two factors; our subjective norms and attitudes. According to Ajzen and Fishbein, attitudes have two components i.e. the strength of belief and evaluation. This theory, therefore, links attitudes, beliefs norms, and

behaviors if individuals. The theory further asserts that all the other factors that influence an individuals' behavior only do so indirectly by influencing the person's attitudes or subjective norms. These external factors can be for example the nature of development implementation, characteristics of tasks, organizational structure, and political influence. A meta-analysis on the theory's application demonstrated that the model can produce impressive predictions that are made by individuals given multiple alternatives.

2.2.2 Diffusion of Innovation Theory

This theory argues that diffusion happens when people agree to use fresh ideas, objects or practices, and where there is information exchange or dissemination within the social systems. Rogers (1983) drafted five features that characterize an innovation, i.e. compatibility, comparative advantage, trialability, complexity, and observability. These basic characteristics of innovation play a fundamental role in influencing the rate of innovation diffusion. The relative advantage of a particular innovation is the perception of individuals regarding whether an innovation is worse or better than similar events. It is easier for individuals to adopt innovations that are perceived as better than existing ones.

On the other hand, compatibility is an observation of whether an innovation matches past and existing knowledge, ideas and experiences. If innovation is similar to a person's understanding, then it is easier to adopt such an innovation. Complexity is defined as the perception of an individual as to whether a particular innovation poses challenges for him/her to use or understand. The model makes the assumption that complexity has a negative correlation with the adoption rate of innovation. Trialability gives individuals the opportunity to try new ideas. Experiencing the characteristics of an innovation will grow the rate of adoption as users start to feel comfortable and confident with an innovation. Lastly, observability measures a person's judgement of whether an invention is visible and available.

The work by Rogers (1983) provides a comprehensive foundation/structure for understanding the process of adopting innovations among individuals. This structure is particularly important because it. The theory has informed other acceptance theories on technology. The model proposed by Rogers (1983) explains some major aspects that affect the adoption of technology

but can also be augmented by other factors such as trust that still have a primary role in influencing the perceptions of users towards adoption.

2.2.3 The Technology Acceptance Model

The theory is a modification of the Theory of Reasoned Action. Davis (1989) argues that internet adoption behaviors are influenced by the intention to utilize computer technology; usefulness and ease of uses. The ease of use can be described as the extent to which an individual expects innovation not to have strain while usefulness probability that an innovation will increase performance. TAM proposes an individual's perceived usefulness as well as attitude directly affects behavioral intentions in unison. In essence, both usefulness and ease of use have a major effect on intention (Martins et al., 2012). Nonetheless, perceived usefulness can be seen as a mediating variable between intention and ease of use.

The TAM further asserts that outside factors affect actual use and behavioral intention through the mediated effects on perceived ease of use and usefulness. Generally, it is believed that the adoption of information technology will be high if users have a positive perception of ease of use and usefulness (Kesharwani & Singh, 2012) The TAM has proven to have superior empirical implications over other models, for example, the TRA. Because of its robustness and parsimony of the scale of its generalizability, the model provides a better foundation for understanding the facets of technology adoption. Many studies have used the Technology Acceptance Model to understand and predict user perceptions of various IT systems, therefore, it is the ideal model for understanding the factors influencing the adoption of electronic banking. Therefore, this study recognizes the need to integrate the TAM to provide an exhaustive model for the evaluation of the adoption of electronic banking.

2.3 Empirical Review

2.3.1 Security Perceptions

The rapid growth of e-banking in Kenya has resulted in drastic changes in banking delivery channels. A significant proportion of Kenyan banks have established a presence on the internet through Internet-enabled devices. According to Warui (2014), about 64% of the variance examined for the adoption of electronic banking is linked to the level of internet utilization in a

particular country. Canada is among the countries with the highest percentage of e-banking users with about 65% of the population. Other countries with high e-banking usage include the Netherlands (65%), the UK (52%) and the U.S. (45%). Most developed countries have an internet adoption rate of over 70%, which has played a big role in elevating their e-banking adoption rates. In contrast, Kenya has a low rate of internet adoption of less than 45% (Warui, 2014). Consequently, this has led to a lower than average rate of e-banking adoption.

Employees in financial institutions pose the biggest security threat banks and customers. According to Bhasin (2015), the danger of insider fraud exists in the possibility of intercepting and modifying payment instructions by banking staff that can cause alterations of payment instructions. On the other hand, financial institutions are increasingly facing attacks from cybercriminals who target their payment platforms. Bhasin (2015) asserts that institutions that offer electronic banking options must invest their resources in tightening encryption strategies. Furthermore, banks should be in a position to offer technical solutions that aim at fraud minimization as well as fair allocation of liabilities for damage whenever fraud occurs.

Agwu (2014) says that in the electronic banking environment, the lack of consumer trust in payment systems and vendors is one of the primary barriers that impede the adoption of electronic banking channels. Hence, commercial banks should ensure that data integrity, confidentiality as well as authentication are among the primary requirements of secure e-banking transactions. A study by Cummings et al., (2012) also indicated that electronic banking channels have led to significant increases in fraudulent transactions unlike in conventional channels where transactions could be traced. Therefore, this indicates the increased susceptibility to financial fraud that consumers continue to face even as they try to utilize the benefits offered by electronic channels.

Security and safety perceptions have a great role in determining the trust levels among customers. Trust is an important factor in electronic banking transactions. Khare et al., (2012) distinguish customer behavior based on their environment and acknowledges the vital role of trust in the electronic sphere. The Integrative Model of Organizational Trust (IMOT) has been openly accepted in the context of electronic research. According to the IMOT model, trust is “the willingness of a party to be vulnerable to the actions of another party based on the expectation

that the other party will perform a specific action, which is vital to the trustor, regardless of the ability to control or monitor the other party (Ashleigh & Prichard, 2012)”

Consequently, the IMOT model brings together both the characteristics of the trustee and the trustor and asserts that a person, (influenced by the personality of the trustor), observes that the trustworthiness of trustee is based on the beliefs of the trustor in the abilities, integrity, and benevolence of the trustee towards the establishment of a relationship of trust within an institutional context (Ashleigh & Prichard, 2012).

In the electronic banking context, customers transact in a virtual setting, which has no banking personnel. According to Ashleigh & Prichard (2012), it is vital for financial institutions to ensure that customers perceive to be conducting business with “real financial institutions” and that the institutional structures are functional and guarantee similar results just like the traditional/conventional systems. Thus, institutional trust has an impact on business relationships between customers and banks and will affect the willingness to adopt electronic banking channels.

2.3.2 Convenience perceptions

Aduda & Kingoo (2012) argued that efficiency is a form of convenience. On the contrary, other theorists, for example, Khare et al., (2012) have categorized convenience under the concept of efficiency. However, both sides of the argument conceive that efficiency refers to the perceived usefulness that customers derive from service in relation to the costs incurred. For example, an individual who perceives mobile payment services as time-saving compared to conventional means of payment adopts the efficiency perception (Laukkanen & Lauronen, 2007). In this regard, whereas convenience is a multidimensional issue, it is by and large related to the ratio between sacrifice and benefits.

According to Oladejo & Akanbi (2012), internet banking is the most convenient method of conducting banking transactions because it presents benefits that are not available in conventional channels. Therefore, through online banking, managers focus on utilizing these advantages to popularize the electronic banking option. Oladejo & Akanbi (2012) assert that benefits can be direct and indirect. Direct benefits are tangible and immediate when utilizing

electronic banking. To illustrate, increased information transparency and faster transaction speeds while using electronic banking is a direct benefit. Indirect benefits, on the other hand, are difficult to measure and less tangible. For example, electronic banking gives customers to perform transactions regardless of their geographical location as well as offering services such as updates on investment opportunities (Khare et al., 2012).

Electronic banking presents a wide range of benefits that lower certain costs such as handling fees bonus points, higher deposit rates, and extra credit. With faster transactions, customers can save time since electronic banking does not need paper documentation that often result in errors and delays. Electronic banking eliminates these errors by mediating transactions between electronic data interchange and websites, thus eliminating the need to be in constant communication with bank staff while performing transactions.

Convenience cannot be assessed without considering the cost of technology. The cost of technology is a fundamental aspect that determines the adoption of any innovation, regardless of the benefits presented. In times of stiff competition, distribution channels must put in place efficient business processes that reduce the costs of distribution. Various studies have alluded to the fact that banks achieve higher efficiency in delivering their services through electronic banking (Martins et al., 2014). Nonetheless, the cost of payments and transactions through the internet has a direct effect on adoption if the consumer bears the costs of these channels (Martins et al., 2014). Yu (2012) carried out a study to investigate customer intentions toward adopting electronic banking. The study indicated that the cost of transactions is one of the most important factors differentiating between low-intention and high-intention customers. The results of this study implied that banks should lower the costs of electronic banking to increase the competitiveness of the channel compared to the conventional ones.

Yu (2012) argues that technology must be reasonably priced relative to alternative methods of delivery for consumers to think about using that technology. As Aliyu et al., (2012) put it, the value barrier accounts for a significant proportion of for the poor performance of many new developments since users perceive that the value of adopting such developments is inherently lower than the costs. Therefore, despite offering convenience to users, individuals will choose to stick to the options that offer value for money. Hence, if the speed of electronic banking adoption

is low, it could imply that banks have not put reasonable prices on these channels to attract potential customers. According to Hanafizadeh et al., (2014), the technology adopted in rolling out electronic banking may lower or increase the cost of banking from the customers' point of view, consequently, this may encourage or discourage user adoption.

2.3.3 Privacy Perceptions

Information privacy refers to the mechanisms put in place by financial institutions with the aim of protecting the privacy of individuals. These included information collection, processing, disclosure or provision of such personal information to third parties. Nasri & Charfeddine (2012) argue that information exchange through online platforms raises questions regarding the risk of privacy violations since such transactions involve the collection, use and sometimes disclosure of personal information/data. In the context of electronic banking, therefore, the perceived risk of information privacy refers to the subjective perceptions of individual customers on how private financial information is gathered, stored, used and distributed.

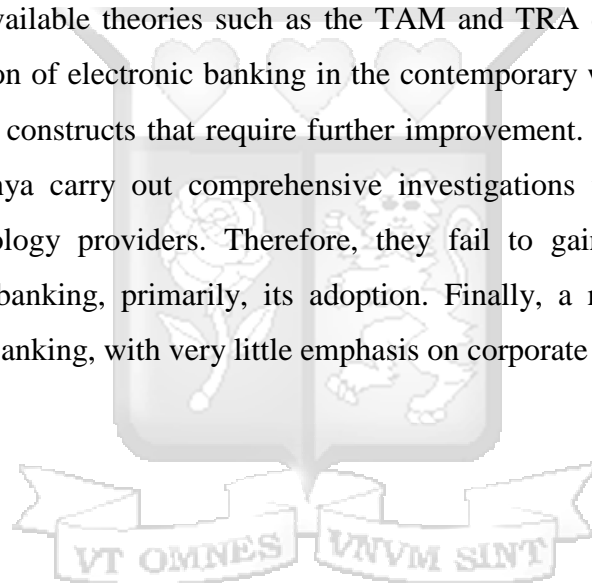
In electronic banking, privacy is the nature of control that customers have over the circumstances and the timing of sharing oneself behaviorally, physically or intellectually with others. Raza & Hanif (2013) concluded that internet banking customers demand more assurance about policies regarding the use, storage, and dissemination of personal information. According to Nasri & Charfeddine (2012), for potential adopters, privacy can be a significant factor in determining their choices. Consequently, banking service providers need to give strong assurances of privacy and more fundamentally empower their customers with control over privacy and exposure of any kind. Ariff et al., (2013) assert that adoption is a function of innovativeness from the consumers, therefore, implying that the perception of risk may have a limited effect on adoption itself. However, it may prompt consumers to find out more information to ascertain the risk levels, mitigate or manage the risk levels.

Raza & Hanif (2013) posits that although financial institutions implement self-regulation regarding information privacy and provide privacy policies to their customers for purposes of avoiding lawsuits, it is likely that a majority of financial institutions will self-regulate their privacy policies. According to Nasri & Charfeddine (2012), perceived violations of privacy

policies are still significant concerns among banking customers. Customers express concerns regarding whether financial institutions will comply with agreed privacy practices in the future.

2.4 Research Gaps

The reviewed literature does not address the challenges that banks face in implementing transitions from conventional banking to e-banking. Similarly, the literature has failed to address the limitations that customers face, including technological know-how, illiteracy and transaction limits that may hinder the utilization of electronic banking. Although different models have been employed in understanding the factors that influence the adoption of electronic banking, there is still a need to find new factors, which can, in turn, expand the explanatory power of currently available models. The available theories such as the TAM and TRA do not include all factors that influence the adoption of electronic banking in the contemporary world. These theories are, at best, vague and broad constructs that require further improvement. Furthermore, none of the available studies in Kenya carry out comprehensive investigations that involve senior bank management and technology providers. Therefore, they fail to gain deep insights into the dynamics of electronic banking, primarily, its adoption. Finally, a majority of the available studies focus on private banking, with very little emphasis on corporate banking.



2.5 Conceptual Framework

In order to provide a detailed picture of the determinants of the adoption of electronic banking in Kenya, the individual factors were explored from a broad perspective. Under privacy, the researcher will consider the aspects of information sharing policies and accessibility of customer information by employees and illegal parties. Under convenience, the researcher measured the ease of use, flexibility of services, costs of transactions and the number of options available for customers to perform transactions such as transfers and payments. On the aspect of security, the researcher measured the susceptibility of electronic banking to hacking, the threat of encryption and internal fraud.

Figure 2.1: Conceptual Framework

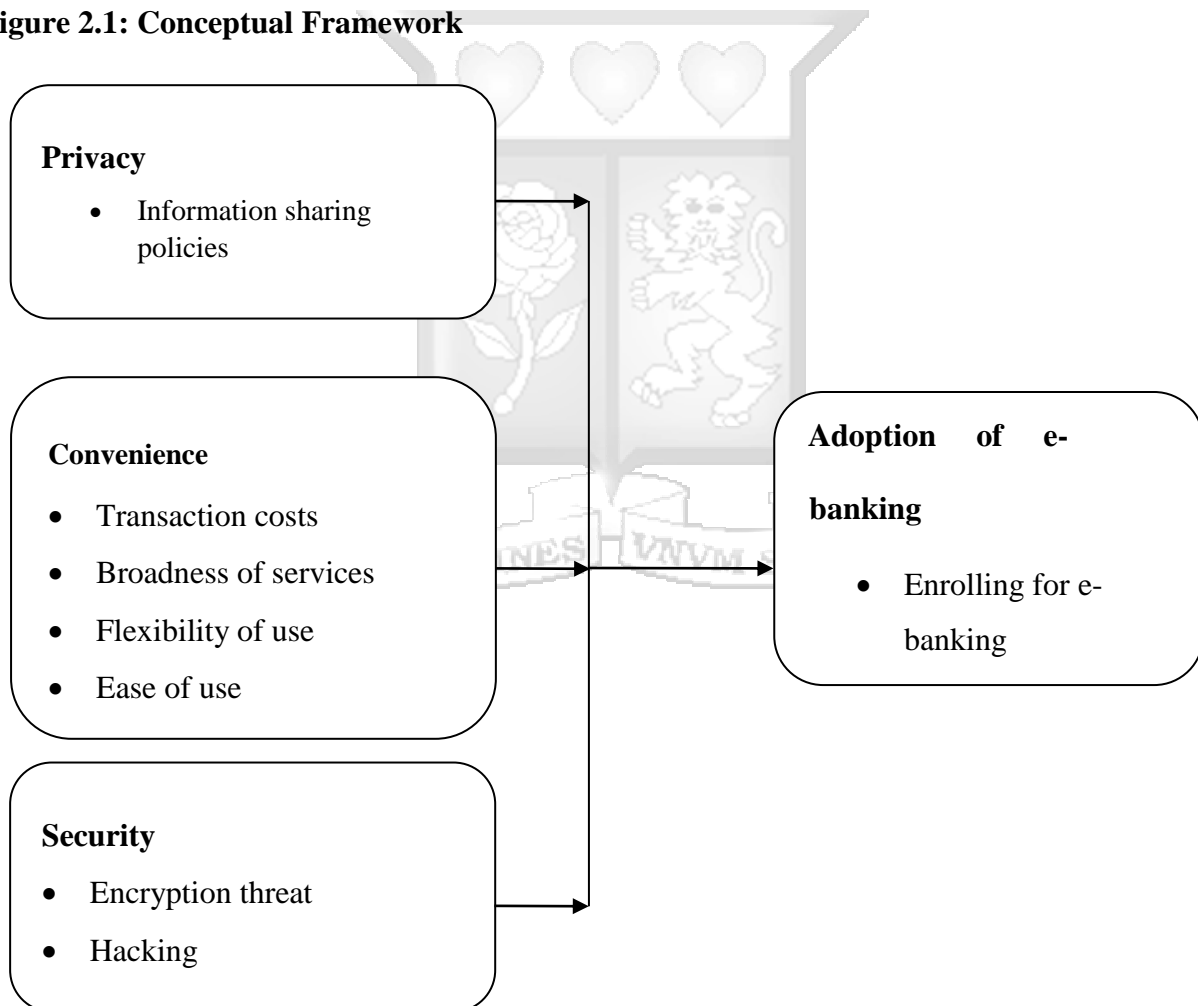




Table 2.1: Operationalisation of variables

Objective	Variable	Indicator(s)	Measurement of Indicators	Measurement Scale	Data collection method
To determine the effect of privacy perceptions on the adoption of e-banking in Kenya	Privacy	Information safety	The frequency of information leakages	Ordinal	Questionnaire
To establish the effect of convenience perceptions on the adoption of e-banking in Kenya	Convenience	Fast transactions No time and geographical restrictions Multiple devices	Speed of transactions Flexibility of transactions	Ordinal	Questionnaire
To examine the effect of security perceptions on the adoption of e-banking in Kenya	Security	Safe and uninterrupted transactions	The frequency of fraud and the effectiveness of emergency responses	Ordinal	Questionnaire

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, which was adopted in the study. It gives specifications for the framework or blueprint for the whole research process that will facilitate the achievement of the research objectives. The chapter highlights the basic research techniques and methods that the researcher used to validate the research objectives. Moreover, the chapter specifies the sampling procedure, the target population as well as the sampling procedures that will be used by the researcher. In addition, the chapter scrutinizes the reliability and validity of the data collection tools the collected data and the data analysis and presentation techniques.

3.2 Research design

The researcher adopted a descriptive research design. This research design is fundamentally addresses the prominent features of definite subjects/population at static or varying times. Descriptive research designs focus on creating profiles of groups of people, or events by collecting data and tabulating the frequencies of the variables under investigation. According to Neuman (2013), descriptive surveys enable researchers to gather information using questionnaires to determine the attitudes, opinions, perceptions, and preferences of individuals of interest to specific research. Another advantage of this research design is that it enables the collection of both qualitative and quantitative data to measure the variables and provide answers to the questions.

3.3 Target population

A population is a totality of an organization, institution or people who share certain characteristics that are consistent with the purpose of a study, i.e. the subject of interest to the researcher that he/she intends to establish an inference. The target population for this study was banking customers between 19 and 70 years. This study did not focus on specific banks, therefore, sampled clients of banks in Kenya took part in the survey.

3.4 Sample size

A sample is a representative group of a population from which to collect data. The sampling frame, on the other hand, provides a description of the list of all units of the population from which a researcher obtains the sample. The population was across several possible banked respondent segments and later the researcher obtained random samples from the stratified population. For generalization to take place, Neuman, (2013) asserts that the sample must have at least 30 respondents. Therefore, the study used a sample of 120 respondents.

The researcher adopted the probability sampling technique. This method is the best in this research because it enabled the generalization of data to the entire population in the banking industry. It is also possible to calculate the resulting estimates' precision derived from the sample as well as calculate the sampling error.

3.5 Data Collection Methods

The major research instruments used in the study were questionnaires. The questionnaires had both open and closed-ended questions that were administered to the sample population. Flick, (2015) says that good data collection methods should help researchers test the research hypotheses or answer the research questions objectively. In each case, an introduction via a call, email or face to face engagement was used. The questionnaires were administered to the respondents who were asked to fill during their free time. The questionnaires were collected on a later date. The researcher ensured uniformity in the manner of asking questions and assured respondents of their privacy.

3.6 Data Analysis Methods and Presentation

After data collection, data was cleaned to ensure completeness of information. This was mostly done at the point of collecting the data. The researcher then coded and organized the data into different categories. The data was analyzed using the Statistical Package for Social Sciences (SPSS). The study adopted a descriptive analysis after testing for the reliability of the data. Descriptive analysis is the statistical procedure used to describe the population being studied. Further, the study estimated a regression model to show the relationship between the independent (customer perceptions) and dependent (adoption of e-banking) variables. The researcher used

numerical and graphical summaries to illustrate the set of data. Data was presented in the form of tables, graphs that depict the percentages, standard deviations and frequencies to come up with a final pattern for the general population.

Regression Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Adoption of E-banking

X_1 = Security Perceptions

X_2 = Convenience Perceptions

X_3 = Privacy Perceptions

e = error term

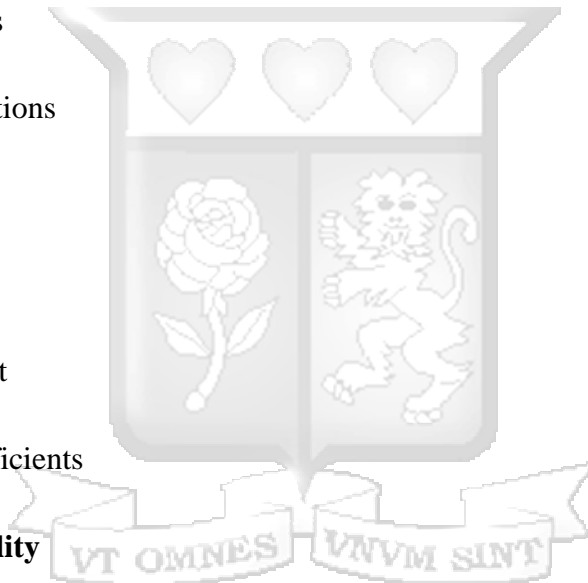
β_0 = represents the constant

$\beta_1, 2, 3$ are regression coefficients

3.7 Validity and Reliability

3.7.1 Data Validity

Validity is “the appropriateness of measures used, accuracy of analysis and generalizability of the findings” (Flick, 2015). It refers to the extent to which findings in a study can be generalized to the whole population. The validity of the content focuses on how the questions included in the questionnaire help in answering the research questions. In this research, construct validity was maintained through the restriction of questions to the conceptualization of variables and making sure that the particular variable indicators fall within the same construct. Face validity was ensured by subjecting the instruments to individuals with experience in the field. According to Lewis (2015), validity can also be measured by determining the content validity index.



CVI=Agreed items by all judges as suitable/Total number of items being judged

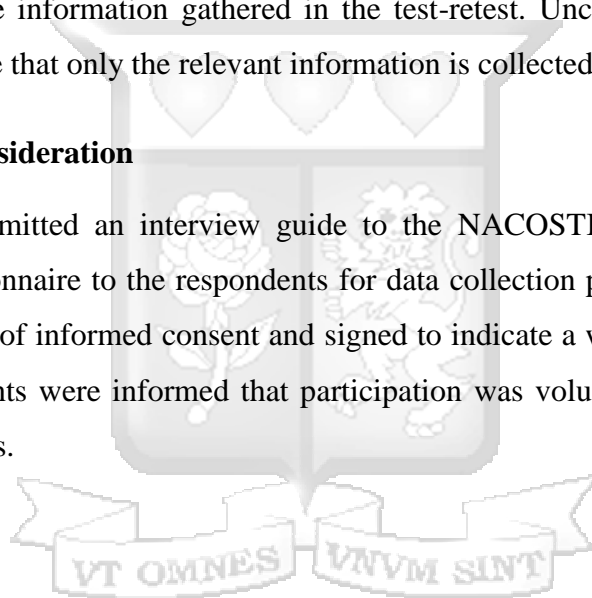
The computed CVI was above the recommended 0.7, the questionnaires were deemed valid for research.

3.7.2 Reliability of instruments

Reliability of instrument measures the degree of consistency between two or more research instruments that address a common problem. For purposes of improving the reliability of the questionnaire, the researcher adopted a test-retest technique where he administered 10 questionnaires to establish the consistency of the responses. The researcher then adjusted the instruments based on the information gathered in the test-retest. Unclear and vague questions were eliminated to ensure that only the relevant information is collected.

3.8 Ethical issues in consideration

The researcher first submitted an interview guide to the NACOSTI before commencing on administering the questionnaire to the respondents for data collection purposes. All respondents were issued with a letter of informed consent and signed to indicate a willingness to take part in the study. The respondents were informed that participation was voluntary, and their identities would remain anonymous.



CHAPTER 4: RESULTS AND FINDINGS

4.1 Introduction

This chapter highlights the results, findings as well as an examination of the study, based on the objectives. The first section of the findings presents the general information of the respondents, the second section presents the findings on the user perceptions of electronic banking, the third section presents findings regarding the convenience of electronic banking while the fourth section presents findings regarding the security perceptions of electronic banking. Out of the 120 questionnaires given out, respondents filled and returned 98 questionnaires, which is equivalent to 81% response rate. This response rate was adequate to make reliable conclusions since the information collected was representative.

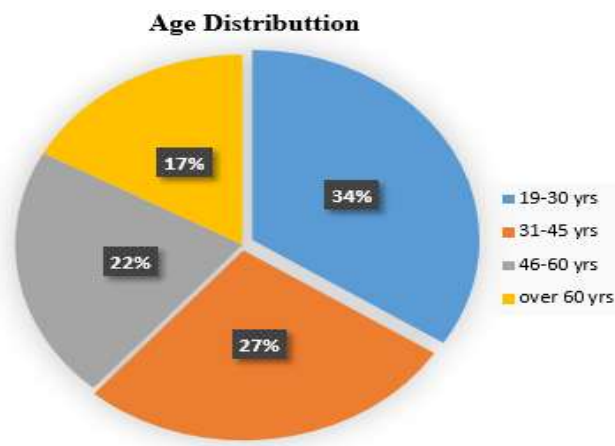
4.2 General Information

The general information from the respondents followed the following sequence: Gender, age, the status of employment, education level, use or non-use of electronic banking, the frequency of using electronic banking and services sought in electronic banking.

4.2.1 Age Distribution

The study analyzed the age category of the respondents. The findings of the study reveal that a majority of the respondents ranging between 19-30 years at 34%, followed by 31-45 at years at 27%, 46-60 years at 22% and over 60 years at 17% as shown in figure 4.2.

Figure 4.2: Age distribution

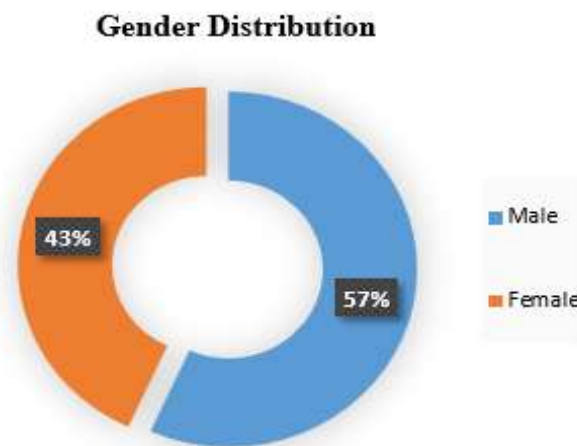


Findings imply that the interview were young individuals. In essence, young individuals have a positive perception of electronic banking services such as internet banking and mobile banking.

4.2.2 Gender distribution

The findings reflected in figure 4.3 shows that 57 % of the participants were male, and the rest female. This indicated that both genders were fairly represented when it comes to the use of electronic banking within the selected sample size. However, this finding does not suggest that an equal utilization of electronic banking among men and women.

Figure 4.3: Gender distribution

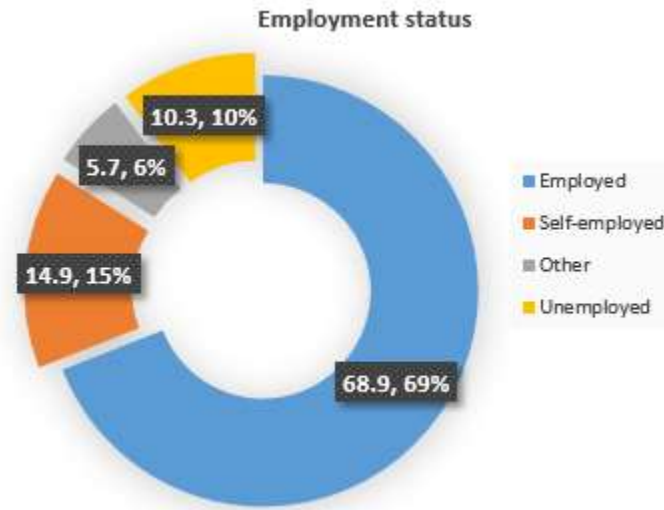


This finding is similar to the finding by Roy & Sinha (2014) on electronic banking in India, which revealed that out of 167 electronic banking users, 70.06% were male and the rest female.

4.2.3 Respondents' Employment Status

Figure 4.3 highlights the finding that most of the respondents are employed at 69%, 15% were self-employed, 10% unemployed while 6% of the respondents were categorized as others, which includes students. As reported by Saeidipour et al., (2013), a majority of electronic banking users tend to be financially stable, hence the relationship between employment and the adoption of electronic banking.

Figure 4.4: Employment Status



4.2.4. Respondents' Academic Qualification

The findings reveal that 87.5% of the respondents that use electronic banking have acquired tertiary education. Okeke & Okpala (2016) had similar findings in their study of electronic banking in Nigeria. The urban population, where this study was conducted, tends to be highly educated, thus more familiar with the facets of electronic banking.

Table 4.2: Academic qualifications

	Frequency	Percent
Primary	3	3.4
Secondary	8	9.1
Tertiary	77	87.5
Total	88	100.0

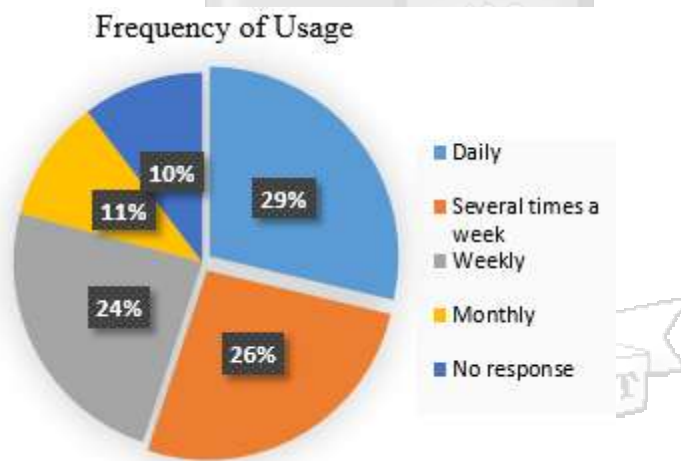
4.2.5 Use of Electronic Banking

Out of a total of 88 respondents, 79 said that they have used electronic banking, while 9 said that they have never used electronic banking. Given that the study was conducted in an urban setting, it shows the high adoption rate of electronic banking in the urban environment.

4.2.6. The frequency of use

The chart below shows the frequency of electronic banking utilization among the respondents. A majority of the respondents said that they use electronic banking on a daily basis at 29%, followed by several times a week at 26%. On the other hand, only 11% of the respondents used electronic banking on a monthly basis. About 10% of the respondents said they do not use electronic banking, therefore there were no responses recorded for this question.

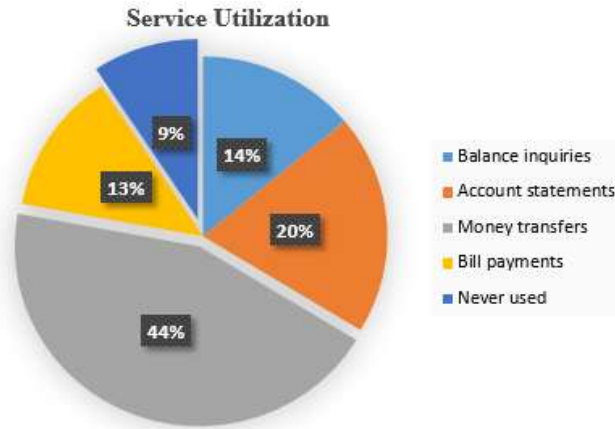
Figure 4.5: Frequency of Usage



4.2.7 Electronic Banking Service Utilization

Money transfer was the most sought out service in electronic banking. This indicates that withdrawing money from personal bank accounts as well as withdrawing money through mobile banking applications accounted for the bulk of users. Bill payments represent 13% of the services sought while 20% of the respondents mostly use electronic banking to confirm their bank account balances.

Figure 4.6: Service Utilization



4.3 Security Perceptions in the Adoption of Electronic Banking

This study aimed at determining whether security concerns may discourage the adoption of electronic banking. The first question sought to find out whether anyone among the participants had been a victim of electronic banking fraud. Only 1 person out of the 88 said they had suffered fraud through electronic banking as shown in table 4.3.

Table 4.3: Incidence of electronic banking fraud

	Frequency	Percent
No response	3	3.4
Yes	1	1.1
No	84	95.5
Total	88	100.0

Table 4.4 shows the participant responses in relation to internet security-related questions in electronic banking. 46% of the respondents either agreed or strongly agreed that security risks influence their attitudes toward accepting electronic banking with a mean of 2.61 and a standard deviation of 1.317. Regarding the ability of banks to provide security in the electronic banking channels, 60.2% of the respondents agreed with the statement with a mean of 2.22 and a standard deviation of 1.22. Regarding whether banks inform their customers on the security risks involved in electronic banking, 23.9% of the respondents disagreed with the statement that “security risks

in electronic banking are known. This had a mean of 2.45 and a standard deviation of 1.22. Less than 50% of the respondents agreed that security risks in electronic banking are known. 28 participants had a neutral response to the question while 18 either disagreed or strongly disagreed.

Table 4.4: Security perceptions in the adoption of electronic banking

	Mean	Standard Deviation
Security risk negatively influences my attitude towards adopting electronic banking	2.61	1.317
My bank is able to provide the necessary security	2.22	1.236
Security risks in electronic banking are known	2.45	1.222
My bank makes me aware of potential security threats in electronic banking	2.45	1.381
I fully trust the security of e-banking channels	1.97	1.011

4.4 Convenience Perceptions and the Adoption of Electronic Banking

This study aimed to determine whether convenience is a factor that determines the adoption of electronic banking. Table 4.5 shows the participants' responses in relation to the convenience of electronic banking and the influence on adoption/utilization.

Regarding whether electronic banking is more efficient than conventional channels, 50% of the respondents supported the efficiency of electronic banking with a mean of 2.51 and a standard deviation of 1.268. Using electronic banking can reduce transaction costs had a mean of 2.22 and a standard deviation of 1.264. 60.2% of the respondents either strongly agreed or agreed with the statement. On the ease of correcting wrong transactions in electronic banking, the responses had a mean of 2.34 and a standard deviation of 1.221. However, 19.3% of the respondents disagreed with the statement while 28.4% gave neutral responses. Most of the respondents agreed with the statement that most e-banking channels are accompanied by efficient customer services with a mean of 1.195 and a standard deviation of 1.103.

Table 4.5: Convenience perceptions and the adoption of electronic banking

	Mean	Standard Deviation
Electronic banking is more convenient than traditional channels	2.51	1.268
Using electronic banking can reduce transaction handling fees	2.22	1.264
It is easy to correct transaction errors in e-banking	2.34	1.221
E-banking channels are accompanied by efficient customer care services	1.95	1.103

4.5 Privacy Perceptions and the Adoption of Electronic Banking

This study aimed to determine whether privacy is a factor that determines the adoption of electronic banking. Table 4.6 shows the responses in relation to the various privacy measures.

First, a majority of the respondents agree that electronic banking ensures client confidentiality with a mean of 2.50 and a standard deviation of 1.305. again, most of the respondents do not believe that there are many cases of privacy violations in electronic banking. Interestingly, when asked whether banks consult customers before sharing sensitive information with third parties, the mean stood at 2.50 with a standard deviation of 1.320. Neutral responses accounted for 30% of the total.

Table 4.6: Privacy Perceptions and the Adoption of Electronic Banking

	Mean	Standard Deviation
E-banking ensures client confidentiality	2.10	1.305
There are many cases of privacy violations in e-banking	3.09	1.571
Banks consult their customers before sharing private information with third parties	2.50	1.320

4.6 Regression Results

This section presents the regression results on the relationship between customer perceptions and adoption of e-banking in Kenya. In particular, the study analyzed the effect of security perceptions, convenience perception and privacy perceptions on adoption of e-banking in Kenya.

The findings in Table 4.7 indicate an R square of 0.59. This shows that the independent variables (security, convenience and privacy perceptions) explain 59% of the total variations in the adoption of e-banking. The remaining 41% is explained by other factors not included in the study model.

Table 4.7: Model of fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.768a	0.59	0.575	0.53634

The results in Table 4.8 reveal that the overall regression model is significant as supported by an F statistics of 40.25 and a p value of 0.000. This means that security, convenience and privacy perceptions are good predictors of the dependent variable (adoption of e-banking). The significance was tested at 5% level of significance.

Table 4.8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.734	3	11.578	40.25	.000b
	Residual	24.163	84	0.288		
	Total	58.898	87			

The findings in Table 4.9 indicate a positive and significant relationship between convenience perceptions and adoption of e-banking. This is supported by a beta coefficient ($\beta=0.866$) and P value of 0.000 at 5% significance level. This implies that an increase in customer convenience perceptions by a unit would increase the adoption of e-banking by 0.866.

Further, results reveal a negative and significant relationship between security perceptions and adoption of e-banking. This is supported by a beta coefficient ($\beta=-0.927$) and P value of 0.007 at 5% significance level. This implies that customer security perceptions reduce their preference for using e-banking by 0.927.

In addition, results show a negative and significant relationship between privacy perceptions and adoption of e-banking. This is supported by a beta coefficient ($\beta=-0.971$) and P value of 0.002 at 5% significance level. This implies that customer privacy perceptions reduce their preference for using e-banking by 0.927.

From the regression results, the following optimal model was derived.

$$\text{Adoption of E-banking} = 1.34 - 0.927 \text{ Security Perceptions} + 0.866 \text{ Convenience Perceptions} - 0.971 \text{ Privacy Convenience}$$

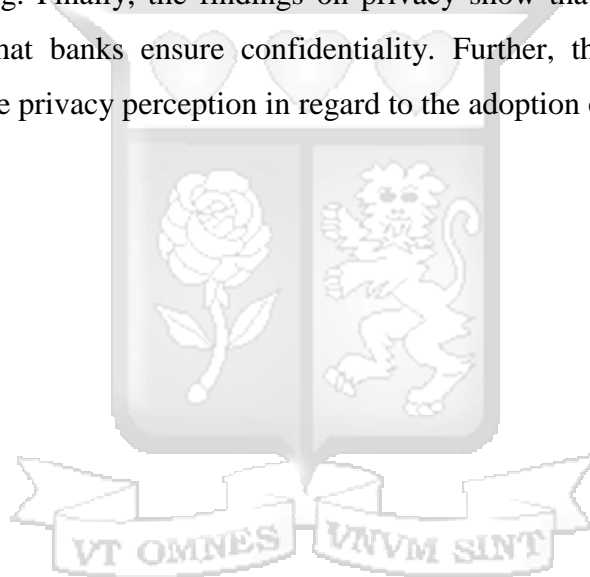
Table 4.9: Regression Coefficients

Model		B	Std. Error	t	Sig.
1	(Constant)	1.34	0.866	1.547	0.126
	Security Perceptions	-0.927	0.338	-2.742	0.007
	Convenience Perceptions	0.866	0.126	6.897	0.000
	Privacy Perceptions	-0.971	0.304	-3.189	0.002

a Dependent Variable: Adoption of E banking

4.7 Chapter Summary

The findings presented in this chapter, specifically relating to the security aspects of electronic banking, show that customers are uncertain whether to embrace the good qualities of internet banking or resist the dangers presented by security loopholes. There is significant skepticism among retail banking customers when it comes to adopting internet banking. The findings revealed that customers have a negative security perception in regard to the adoption of e-banking. The findings on convenience show that users perceive electronic banking as a cheaper and more efficient banking channel, as opposed to the traditional brick and mortar setting. Further, the findings indicated that customers have a positive convenience perception in regard to the adoption of e-banking. Finally, the findings on privacy show that a majority of electronic banking users believe that banks ensure confidentiality. Further, the findings revealed that customers have a negative privacy perception in regard to the adoption of e-banking.



CHAPTER FIVE: DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the findings of this study and elaborates the relationship with the appropriate theory. The chapter also provides an overview of how the identified factors influence the adoption of electronic banking in Kenya. The study will have important theoretical and practical contributions to the future direction in electronic banking. The limitations of this study are also discussed as well as recommendations for improvements in future studies.

5.2 Discussion of Findings

The study revealed that perceptions and attitudes about electronic banking have important implications on adoption, as demonstrated among the non-users of electronic banking.

5.2.1 Security Perceptions and the Utilization of Electronic Banking

The findings on the security perceptions among customers show that customers are aware of the security risks that come with electronic banking. While some individuals believe that banks are able to guarantee the safety of their money and transactions, others are skeptic. About 90% of the participants who do not use electronic banking had negative responses on the security-related questions. The study's findings revealed that security risks have a negative influence on electronic banking utilization. Respondents indicated that they might avoid electronic banking on the basis of its susceptibility to fraud and privacy violations. A similar study by Roy & Sinha (2014) found that banking customers may be unwilling to change from conventional ways of conducting their banking operations to electronic banking unless they are fully satisfied with the safety of alternative channels. Similarly, the study has revealed that some customers are aware of the different types of security risks in electronic banking while some are either unsure or do not know about the risks. Therefore, depending on the assessment of risk, individuals might decide to adopt or not to adopt new banking methods.

Given the number of neutral responses to questions regarding the ability of banks to provide adequate security in electronic banking, the study established that there is a lot of uncertainty about the safety of e-banking. John & Roitimi (2014) found that customers may resist e-banking

because they fear losing money or irreversible errors when making transactions, while some may be unsure about the safety of these innovations. In this study, 20% of the respondents believed that their banks are not able to provide security. Fears such as network failures and interconnectivity challenges may inconvenience customers and cause further security risks in pending/incomplete transactions. Such interruptions may force electronic banking customers to forego activities such as shopping and bill payments especially over the weekends where banks close early. With all this information in the hands of service providers, electronic banking users need assurance about who is allowed access to this kind of information.

Previous studies on electronic banking such as John & Roitimi (2014) rank security as an important predictor of the adoption of alternative banking methods. Security risk is often associated with loss of credit account numbers, loss of money or even loss of passwords. Hackers and rogue staff remain the most important threat to electronic banking as demonstrated by Belás et al., (2016). Even though such dangers exist in the context of electronic banking, the convenience offered by these channels prompt customers to ignore these threats or trust the existing contingency measures. As shown in this study, a significant proportion of electronic banking users are unsure about the ability of their banks to provide the required security. However, they still believe that electronic banking is convenient and safe to use despite the concerns raised.

This finding agree with Oladejo & Akanbi (2012) conclusion that internet banking is the most convenient method of conducting banking transactions because it presents benefits that are not available in conventional channels. Further, the results concur with Hanafizadeh et al., (2014) assertion that technology adopted in rolling out electronic banking may lower the cost of banking from the customers' point of view, consequently, this may encourage user adoption. Similarly, Yu (2012) suggested banks should lower the costs of electronic banking to increase the competitiveness of the channel compared to the conventional ones.

5.2.2 Convenience Perceptions and the Utilization of electronic banking

This study revealed that convenience ranks highly among users of electronic banking. Among the services sought through electronic banking, 13% of the respondents in this study said they

mostly use electronic banking for bill payments while 44% of the respondents said they used electronic banking to conduct money transfers. This shows the effort minimization benefit of electronic banking. This finding is in line with John & Roitimi (2014) who established that internet banking increased comfort by reducing the energy and time used in performing a particular task. These benefits are spread across all electronic banking channels such as ATMs and mobile banking. As revealed by the study, customers believe that e-banking is convenient in terms of access, cost of transactions and customer care support. Despite expressing privacy and security concerns in electronic banking, convenience seemed to be the deal maker in adopting e-banking.

In this study, convenience has come out as the major influence on the overall appeal of electronic banking. Similarly, Osei et al., (2014) found out that convenience is multidimensional and has an impact on the overall customer assessment of electronic banking service, including satisfaction attributed to it. Users attach a high value to the effort-saving characteristic of electronic banking i.e. the minimization of physical, cognitive and emotional activities that customers have to bear to access banking services. Dhananjay & Ch (2015) found that convenience is multidimensional and has an impact on the overall consumer assessment of service, including satisfaction attributed to it.

The findings agree with Agwu (2014) assertion that in the electronic banking environment, the lack of consumer trust in payment systems and vendors is one of the primary barriers that impede the adoption of electronic banking channels. Further, Cummings et al., (2012) noted that electronic banking channels have led to significant increases in fraudulent transactions unlike in conventional channels where transactions could be traced. In addition, Bhasin (2015) asserts that institutions that offer electronic banking options must invest their resources in tightening encryption strategies.

5.2.3 Privacy Perceptions and the Utilization of Electronic Banking

Electronic banking often results in the accumulation and storage of a large pool of private information concerning the users. Such information may include sensitive personal details as well as the volume and nature of transactions that customers perform. in countries that have

limited data control laws such as Kenya, privacy concerns are often magnified. In this study, it is evident that even though some respondents trust the security of their information, some are still skeptic about their bank's ability to ensure confidentiality.

The results of this study mirror the findings of Munyoki & Ngigi (2012) which concluded that customers want a fair handling of their banking information especially in cases where privacy invasions occur when individuals substantially lose control over their personal information. This is similar in electronic banking where customers do not have full control of their banking information. Similarly, Belás et al., (2016) demonstrated that customers are more reluctant to adopt new forms of banking when there are uncertainties. Regarding the privacy and security of proposed channels.

This study has shown that customers care about the different dimensions of information security i.e. integrity, confidentiality and availability are important in building trust among customers. These three aspects can be affected by natural phenomena, deliberate or accidental human causes and technical issues. Tarhini et al. (2015) also concluded that imaginations among users as well as narrations of privacy violations by other users may discourage customers from adopting electronic banking. This is important in this study considering that 30% of the respondents believed that banks do not consult their customers when sharing their information with third parties.

This finding agrees with Nasri and Charfeddine (2012) argument that information exchange through online platforms raises questions regarding the risk of privacy violations since such transactions involve the collection, use and sometimes disclosure of personal information/data. Further, Raza and Hanif (2013) posited that although financial institutions implement self-regulation regarding information privacy and provide privacy policies to their customers for purposes of avoiding lawsuits, it is likely that a majority of financial institutions will self-regulate their privacy policies.

5.3 Conclusion

The objective of this study was to investigate the perception of customers on privacy, convenience as well as the safety of electronic banking in Kenya.

5.3.1 Safety Perceptions

When adopting new innovations or products, users face a dilemma weighing between the good and bad qualities of such innovations. If the decision involves weighing risks such as the security of one's deposits/savings, then the decision becomes even more important. The study revealed that banking customers consider safety as an important factor when deciding whether to use electronic banking. There is a lot of uncertainty about the safety of e-banking among users since some features such as mobile phone banking and internet banking are still fairly new. Customers may resist e-banking because they fear losing money or irreversible errors when transacting. A significant proportion of customers are yet to adopt or have partially adopted electronic banking because of security concerns. Despite the numerous benefits of e-banking channels, customers are still rooted to the physical bank. Banks must find a way of striking a balance between convenience and safety.

5.3.2 Privacy perceptions

The findings on privacy perceptions among electronic banking users revealed that individuals who have not embraced electronic banking are worried about how their private information is handled. On the other hand, individuals who use electronic banking are unsure of whether banking institutions consult them before sharing their private information. Information exchange through online platforms raises questions regarding the risk of privacy violations since such transactions involve the collection, use and sometimes disclosure of personal information/data. In the context of electronic banking, therefore, the perceived risk of information privacy refers to the subjective perceptions of individual customers on how private financial information is gathered, stored, used and distributed. Indeed, the study reveals that even though customers may prefer using electronic banking, they do so with a degree of skepticism in the context of privacy.

5.3.3 Convenience Perceptions

The study established that electronic banking is a convenient way of conducting banking transactions. A majority of the respondents agreed that banks offer excellent customer care support through electronic banking channels and especially contact centres. Similarly, a majority of the respondents said that it was easy to reverse transaction errors that occur in electronic

banking. The convenience of electronic banking is further elaborated by considering the services sought through electronic banking. Bill payments and money transfers accounted for the largest proportion of services sought through electronic banking. In terms of efficiency, most of the respondents agreed that electronic banking reduces transaction fees.

Convenience increases accessibility for information and services. The most important feature of e-banking is its effort-saving features. In this study is the value that users attach to the effort-saving characteristic of electronic banking i.e. the minimization of physical, cognitive and emotional activities that customers have to bear to access banking services. While developing electronic banking channels, have to leverage on convenience and augment it with other features such as assured safety and privacy for their customers.

5.4 Recommendations

5.4.1 Electronic Banking and Security

The security of electronic banking systems is the main concern for users as well as service providers in the banking industry. as revealed in the study, there is significant concern about the security threats that emerge from the contemporary channels. Various measures can be put in place to eliminate or minimize these threats. Customer education is perhaps the most important way of enhancing security. Any system is just as secure as the people that use it. For example, if users adopt weak passwords or re-use the same password in multiple avenues, then it is easy to attract external threats. Other items that can be included in customer education include exercising good judgment when giving personal information as well as highlighting the phishing schemes used by attackers.

From a technical point of view, service providers should ensure the use of deterrence such as secure socket layers (SSL) which encrypts data between individuals' electronic devices and the site server. On the same note, banks must ensure the enforcement of password policies to prevent exposure to fraud. Organizations should also put in place efficient intrusion detection mechanisms for early detection of hackers and intruders. Apart from security logs, banks should employ business auditing to monitor payment processing. These logs can be monitored and reviewed to detect abnormal patterns and suspicious interactions between businesses.

5.4.2 Electronic Banking and Privacy

This study has shown that customers care about the different dimensions of information security i.e. integrity, confidentiality and availability are important in building trust among customers. These three aspects can be affected by natural phenomena, deliberate or accidental human causes and technical issues. Unique usernames and passwords can be used in conjunction with other measures such as preventing disclosure and unauthorized access to back-end information to reduce cases of privacy breaches. Most importantly, these strategies must be backed by appropriate legislation that stipulates punitive measures against individuals engaged in unauthorized access and sharing of personal information. Banks must also have clear privacy policies and share the same with customers to avoid suspicions.

5.4.3 Electronic Banking and Convenience

As shown in the study, a majority of electronic banking users are attracted to the services because of their convenience. Therefore, banks must continue to provide services that give immediate benefits to customers. For example, customers will enjoy a wider variety of financial services, increased information transparency and faster transaction speeds while using electronic banking. Indirect benefits, on the other hand, although difficult to measure and less tangible, must be included in the electronic banking package. For example, e-banking should enable customers to perform transactions regardless of their geographical location as well as offer services such as updates on investment opportunities. This will encourage the adoption and continuous use of e-banking.

5.5 Suggestion for Future Research

This study restricted its investigation on three factors i.e. privacy, convenience and security in electronic banking. Future studies can be less specific to include other factors that might not have been captured in this study but are still relevant to the research question. On the same note, the study was restricted to Nairobi, which has demographic characteristics of an urban population. The inferences made cannot be objectively generalized for the whole population. Therefore, future studies can have a wider scope to give a realistic of the adoption of electronic banking in the country.

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APPENDIX

Appendix 1: Questionnaire

(Researcher/MBA Finalist – Strathmore Business School)

SECTION A- GENERAL INFORMATION

Gender Male ☐ Female ☐

Age 19-30 ☐ 31-45 ☐ 46-60 ☐ Over 60 ☐

Occupation _____ Not employed ☐ Self-employed ☐ Other (specify) ☐

.....

Education level Primary ☐ Secondary ☐ Tertiary ☐

Have you ever used electronic banking? Yes ☐ No ☐

How often do you use electronic banking? (If the answer to the above question is Yes)

Daily ☐ Weekly ☐ Several times a week ☐ Monthly ☐

What services do you seek through electronic banking?

Account statements ☐ Money transfers ☐

Balance Inquiries ☐ Bill payments ☐

Credit card processing ☐ Others (please specify)

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SECTION B- SECURITY PERCEPTIONS OF ELECTRONIC BANKING

Have you ever been a victim of fraud while using electronic banking? Yes ☐ No

Do you know someone who has been a victim of fraud while using electronic banking?

Yes ☐ No ☐

Please tick in the respective box whether you agree or disagree with the following statements:

	Agree	Strongly Agree	Neutral	Disagree	Strongly disagree
Electronic banking is secure					
Security risk negatively influences my attitude towards adopting electronic					

banking					
My bank is able to provide the necessary security					
Security risks in electronic banking are known					
My bank makes me aware of potential security threats in e-banking					
I fully trust the security of e-banking channels (branches)					

In what other ways has the security of electronic banking influenced your utilization of electronic banking?

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SECTION C- CONVENIENCE PERCEPTIONS OF ELECTRONIC BANKING

	Agree	Strongly Agree	Neutral	Disagree	Strongly disagree
Electronic banking is more convenient than					

traditional channels					
Using electronic banking can reduce transaction handling fees.					
It is easy to correct transaction errors in electronic banking					
E-banking channels are accompanied by efficient customer care services					

In what other ways has the convenience of electronic banking influenced your utilization of electronic banking?

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SECTION D- PRIVACY PERCEPTIONS OF ELECTRONIC BANKING

	Agree	Strongly Agree	Neutral	Disagree	Strongly disagree
Electronic banking ensures client confidentiality					

It is secure to send sensitive information across electronic banking channels					
There are many cases of privacy violations in electronic banking					
Banks consult customers before sharing private information with third parties					

In what other ways has the privacy perceptions of electronic banking influenced your utilization of electronic banking?

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Appendix 2: Letter of Introduction



Strathmore Business School

Friday, 17 August 2018

To whom it may concern

Dear Sir/ Madam,

RE: FACILITATION OF RESEARCH –ALLAN WAITITU

This is to introduce Allan Waititu who is a Master of Business Administration student at Strathmore Business School, admission number MBA/93053 /16. As part of our MBA Program, Allan is expected to do applied research and to undertake a project. This is in partial fulfilment of the requirements of the MBA course. To this effect, he would like to request for appropriate data from your organization.

Allan is undertaking a research paper on-: “Customer Perceptions on The Adoption of Electronic Banking in Kenya.” The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and we shall be willing to provide any further information if required.

Yours sincerely,

Muriithi Njogu.
Director – MBA Programs





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Twitter: @SBSKenya

Strathmore Business School is a proud member of:



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Appendix 3: Nacosti Permit

THIS IS TO CERTIFY THAT: MR. ALLAN MAINA WAITITU of STRATHMORE BUSINESS SCHOOL , 0-200 NAIROBI ,has been permitted to conduct research in All Counties on the topic: CUSTOMER PERCEPTIONS ON THE ADOPTION OF ELECTRONIC BANKING IN KENYA for the period ending: 14th February,2020 Applicant's Signature	Permit No : NACOSTI/P/19/33352/28179 Date Of Issue : 14th February,2019 Fee Recieved :Ksh 1000   Director General National Commission for Science, Technology & Innovation
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Appendix 4: Research Work Plan

	Task	Planned Start	Time in Weeks	Planned Completion	N	D	J	F	M	A	M
1	Advanced literature study	1/11	3	03/11		.					
2	Finalising research problem	3/11	1	3/11							
3	Planning research design	3/11	1	3/11							
4	Preparation of project approval	1/1	2								
6	Write chapter 2	2/1	3								
7	Write chapter 3	3/1	2								
8	Analyze literature work	3/2									
9	Write chapter 4	4/2	3								
11	Write chapter 5	4/2	4								
12	Review and edit draft chapters	1/3	4								
13	Finalize dissertation	4/3	2								
14	Proofreading	4/4	1								
15	Correct mistakes	4/4	1								
16	Hand thesis for examination	4/4	1								

Appendix 4 : Budget estimates

Initiation & Planning	Role	Number of days	Daily rate (Ksh)	Total cost (Ksh)	Justification
	Research Assistant				Support in research filed data collection/calls
	Access to meeting venue	5 days	nil		Use Club/office
	<ul style="list-style-type: none"> - Assistants - Refreshments, fares and meals - Telephony and data 	5 days	1,000	5,000	Planning and review
	Personal costs <ul style="list-style-type: none"> - Transports - Meals - Parking - Telephony and data 	20	1,000	20,000	Meetings, transport, telephony and data
Field/survey travel	Field assistants	15	2000	30,000	Data collection
	Compiling	5	1000	10,000	Data entry and tools
	Printing and telephony	2	1000	2,000	
Materials and others	Stationery Binding Others miscellaneous	5	500	2,500	Hard copies and presentation